

REMARKS

Claims 1 and 3-17 are pending in this application. Non-elected claims 4-8 and 10-13 have been withdrawn from consideration by the Examiner. By this Amendment, claims 1, 9, 10, and 12 are amended, claim 2 is canceled, and claims 14-17 are added. Support for the amendments to the claims may be found, for example, in the specification at page 4, lines 12-14; page 6, lines 1-10; and page 9, line 1, and original claim 2. No new matter is added.

I. Restriction Requirement

Applicants affirm the oral election of Group I, claims 1-3 and 9, with traverse.

Applicants respectfully submit that the Office Action fails to establish that a lack of unity of invention exists between Groups I-V. PCT Rule 13.1 provides that an "international application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept." PCT Rule 13.2 states:

Where a group of inventions is claimed in one and the same international application, the requirement of unity of invention referred to in Rule 13.1 shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

A lack of unity of invention may be apparent "*a priori*," that is, before considering the claims in relation to any prior art, or may only become apparent "*a posteriori*," that is, after taking the prior art into consideration. See MPEP §1850(II), quoting *International Search and Preliminary Examination Guidelines* ("ISPE") 10.03. Lack of *a priori* unity of invention only exists if there is no subject matter common to all claims. *Id.* If *a priori* unity of invention exists between the claims, or, in other words, if there is subject matter common to

all the claims, a lack of unity of invention may only be established *a posteriori* by showing that the common subject matter does not define a contribution over the prior art. *Id.*

Furthermore, unity of invention only needs to be determined in the first place between independent claims, and not the dependent claims, as stated in ISPE 10.06:

Unity of invention has to be considered in the first place only in relation to the independent claims in an international application and not the dependent claims. By “dependent” claim is meant a claim which contains all the features of one or more other claims and contains a reference, preferably at the beginning, to the other claim or claims and then states the additional features claimed (Rule 6.4).

See also MPEP §1850(II). ISPE 10.07 further provides:

If the independent claims avoid the prior art and satisfy the requirement of unity of invention, no problem of lack of unity arises in respect of any claims that depend on the independent claims. In particular, it does not matter if a dependent claim itself contains a further invention.

See also MPEP §1850(II).

The Office Action asserts, "The inventions listed in Groups I-V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features because the technical feature of a liquid composition comprising at least diamond fine particles, a dispersant, and amine substance (common to all groups) is taught by U.S. Patent Application Publication No. 2003/0038110 to Bachrach et al. (herein "Bachrach"). However, Bachrach at least fails to disclose diamond fine particles and a dispersant (paragraph [0010]).

Applicants submit that for the present application, a lack of unity of invention may only be determined *a posteriori*, in other words, after a search of the prior art has been conducted and it is established that all of the elements of independent claim 1 are known. *See* ISPE 10.07 and 10.08. However, because Bachrach fails to establish that the special technical feature was known in the prior art and because the Office Action fails to provide any other

references showing that the subject matter common to the embodiments defined by Groups I-V (for which at least claim 1 is generic) was known in the prior art, Applicants submit that the Office Action fails to establish *a posteriori* that a lack of unity of invention exists between the embodiments of Groups I-V. Therefore, the Office Action has not met its burden in establishing a lack of unity of invention.

Because the Office Action has not demonstrated a lack of unity of invention under the rules, the Restriction Requirement is improper. Accordingly, reconsideration and withdrawal of the Restriction Requirements are respectfully requested.

II. Rejections Under 35 U.S.C. §102

A. Bachrach

The Office Action rejects claims 1-3 and 9 under 35 U.S.C. §102(b) over Bachrach. By this Amendment, claim 2 is canceled, rendering its rejection moot. As to the remaining claims, Applicants respectfully traverse the rejection.

By this Amendment, claim 1 is amended to require "diamond fine particles purified and oxidized by heating with a purifying agent" and to require that the amine substance has "a boiling point of 50°C or higher and 300°C or lower" as previously required by claim 2. Despite its asserted teachings, Bachrach fails to expressly or inherently disclose a liquid composition having each and every limitation set forth in claim 1.

Applicants respectfully submit that even before the claim amendments it forth above, an anticipation rejection of claim 1 over Bachrach is clearly improper. The Office Action alleges that Bachrach discloses in paragraph [0010] "a slurry of abrasive particulate such as diamond in a liquid wherein the liquid may be water and that amine gallates are added to the slurry as well." However, diamond is only one of eight specifically-listed possible particulate materials, and Bachrach further discloses that "other similar fine-grained hard materials" are suitable. *See* paragraph [0010].

Additionally, Bachrach does not disclose in paragraph [0010] that the liquid may be water, and that amine gallates are added to the slurry as well. Instead, Bachrach discloses that "Water can be used for a minimal or no chemical component, the only mechanical etching, is desired. The chemical etchings that may be used as a slurry liquid are selected from among solutions of the following materials:... and amine gallates." *Id.* Therefore, Bachrach discloses that either water can be used as the liquid or a chemical etchant can be used as the liquid. Therefore, Applicants respectfully submits that stating that Bachrach discloses "that amine gallates are added to the slurry as well" is a mischaracterization because Bachrach does not disclose amine gallate to some additive to the slurry but instead teaches it as the liquid that makes the slurry.

Furthermore, nowhere does the Office Action explicitly set forth or otherwise assert that Bachrach discloses a dispersant which is required in addition to the diamond fine particles in the amine substance required by claim 1.

Moreover, nowhere in paragraph [0010] does Bachrach disclose a single composition specifically having diamond fine particles, an amine substance, and a dispersant, as previously required by claim 1. At most Bachrach, mentions that diamond particles may be selected and that amine gallates may be used. However, Bachrach provides no specific combination of the instantly claimed substances. Thus, for at least the reasons discussed above, the Office Action fails to establish a prima facie case of anticipation of claim 1 over Bachrach.

Nevertheless, claim 1 has been amended as discussed above. Bachrach fails to disclose diamond fine particles that are oxidized and purified as required by amended claim 1. The Office Action asserts that Bachrach discloses diamond particulates and amine solutions (paragraph [0010]), and that from this the claimed invention is disclosed.

The Office Action also asserts that the composition disclosed by Bachrach would inherently have an amine substance having a boiling point of 50°C or higher and 300°C or lower. The Office Action asserts that Bachrach discloses a substantially identical composition and identical compositions can not have mutually exclusive properties. However, the Office Action fails to point to any composition disclosed by Bachrach that would be substantially identical to the compositions instantly claimed. Because of the many different combinations of particles and liquids that could be obtained by those listed in paragraph [0010] of Bachrach, obtaining a combination that even has an amine substance in it is only a possibility, not a necessity. It is well established that inherently cannot be established on probability. To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted).

For at least these reasons, Bachrach does not anticipate claim 1. Claims 3 and 9 variously depend from claim 1 and, thus, also are not anticipated by Bachrach. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

B. Horie

The Office Action rejects claims 1-3 and 9 under 35 U.S.C. §102(b) over U.S. Patent No. 6,287,449 to Horie et al. (herein "Horie"). By this Amendment, claim 2 is canceled, rendering its rejection moot. As to the remaining claims, Applicants respectfully traverse the rejection.

The amendments to claim 1 are set forth above. Despite its asserted teachings, Horie fails to disclose purified and oxidized diamond particles, a dispersant, and an amine substance

having a boiling point of 50°C or higher and 300°C or lower, nor does Horie disclose a specific composition having this combination of these substances. At most, Horie discloses a laundry list of chemicals that may be added to its slurry, only a couple of which could be classified as an amine substance.

Further, the Office Action provides no indication that any of the amine substances disclosed by Horie has a boiling point in the range of 50°C or higher and 300°C or lower, or otherwise establishes that any of Horie's amine substances are substantially identical or identical to any of the amine substances disclosed in the Applicants' specification as meeting the recited range. As such, the Office Action fails to provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of Horie.

For at least these reasons, Horie does not anticipate claim 1. Claims 3 and 9 variously depend from claim 1 and, thus, also are not anticipated by Horie. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

C. Fumihide

The Office Action rejects claims 1-3 and 9 under 35 U.S.C. §102(b) over JP 61-218680 to Fumihide et al. or over JP 62-043482 to Fumihide et al (herein "Fumihide"). By this Amendment, claim 2 is canceled, rendering its rejection moot. As to the remaining claims, Applicants respectfully traverse the rejections.

Similarly to Bachrach and Horie, Fumihide fails to disclose purified and oxidized diamond particles, a dispersant, and an amine substance having a boiling point of 50 °C or higher and 300 °C or lower. The Office Action asserts that Fumihide discloses the addition of a water soluble polymer comprising a monomer having an amino group. The Office Action provides no indication that the disclosed copolymer in Fumihide possesses a boiling point in the range of 50 °C or higher and 300 °C or lower. Applicants submit that the disclosed

copolymer in Fumihide, which is well known in the art, does not have a boiling point, but instead decomposes at a high temperature. The copolymer of Fumihide cannot have a boiling point and, thus, cannot be identical with the instantly claimed amine substance having a boiling point of 50 to 300°C.

For at least these reasons, Fumihide does not anticipate claim 1. Claims 3 and 9 variously depend from claim 1 and, thus, also are not anticipated by Fumihide. Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

III. New Claims

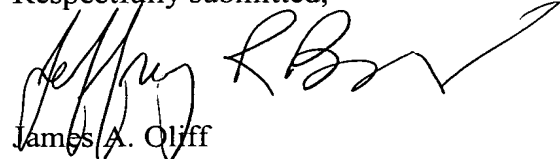
By this Amendment, new claims 14-17 are presented. New claims 14-17 depend from claim 1 and, thus, distinguish over the applied references for at least the reasons discussed above with respect to claim 1. Prompt examination and allowance of new claims 14-17 are respectfully requested.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Jeffrey R. Bousquet
Registration No. 57,771

JAO:CSM/mkg

Date: January 8, 2009

OLIFF & BERRIDGE, PLC
P.O. Box 320850
Alexandria, Virginia 22320-4850
Telephone: (703) 836-6400

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
--